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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of P. Martin Petkovich  
Serial No.: 09/668,482  
Filing Date: 09/25/2000  
Title: RETINOID METABOLIZING PROTEIN  
Art Unit: 1645  
Atty's Docket No.: 57600/00035



**Box Non-Fee Amendment**

The Commissioner of Patents and Trademarks  
Washington, D.C. 20331  
U.S.A.

**PRELIMINARY AMENDMENT**

Dear Sir:

This is in response to the Notice to File Missing Parts Dated December 20, 2000,  
to which a response is due on February 20, 2001.

**IN THE CLAIMS**

Please amend the claims as follows:

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83. (New) An isolated protein having the ability to oxidize a retinoid and encoded by a nucleic acid molecule comprising a nucleotide sequence that hybridizes under high stringency conditions, wherein high stringency conditions include a wash step of about 0.2x SSC at 50°C, to the nucleotide sequence shown as SEQ ID NO:3 or SEQ ID NO:5 or SEQ ID NO:31, including a conservatively substituted amino acid variant thereof.
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(5)
84. (New) The isolated protein of claim 83 in which the nucleic acid molecule comprises a nucleotide sequence identified as SEQ ID NO:3 or SEQ ID NO: 5 or SEQ ID NO:31, or which varies from SEQ ID NO:3 or SEQ ID NO:5 or SEQ ID NO:31 in a coding region due to the degeneracy of the genetic code.
85. (New) The isolated protein of claim 83 in which the sequence of the nucleic acid molecule comprises a part of a human, fish or mouse genome, or variants therefrom due to the degeneracy of the genetic code.
86. (New) The isolated protein of claim 83 in which the isolated protein oxidizes the carbon at the 4-position of the  $\beta$ -ionone ring of the retinoid.
87. (New) The isolated protein of claim 83 in which the retinoid is a retinol or a retinoic acid.